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EXAMINER	
DAO, THUY CHAN	

ART UNIT	PAPER NUMBER
2192	

NOTIFICATION DATE	DELIVERY MODE
09/23/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PATDOCTC@fr.com

Office Action Summary	Application No.	Applicant(s)	
	10/659,056	BLUMENTHAL ET AL.	
	Examiner	Art Unit	
	Thuy Dao	2192	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01 July 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-7,9-14,16-20 and 24-31* is/are pending in the application.

4a) Of the above claim(s) *15* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-7,9-14,16-20 and 24-31* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *09 September 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This action is responsive to the amendment filed on July 1, 2008.

2. Claims 1-7, 9-14, 16-20, and 24-31 have been examined.

Response to Amendments

3. In the instant amendment, claims 1-2, 9, 13, 17, 25 have been amended; claims 28-31 have been added.

Response to Arguments

4. Applicants' arguments have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections – 35 USC §102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1, 3, 9, 11, 13, 17, and 25-26 are rejected under 35 U.S.C. 102(a) as being anticipated by "Assertions and Protocol for the OASIS Security Assertion Markup Language (SAML)", published November 5, 2002 (art made of record, hereafter "SAML").

Claim 1:

SAML discloses *a computer program product, tangibly embodied on a machine-readable storage device, comprising instructions operable to cause data processing apparatus to:*

establish a plurality of checkpoints in a computer program, the computer program having a program structure (e.g., page 8, Figure 1: a plurality of assertions; page 6, Introduction: XML-encoded SAML assertions)*,*

each checkpoint in the plurality of checkpoints including an assertion statement (e.g., pp. 11-13, samples of assertion statements)*; and*

assign each checkpoint in the plurality of checkpoints to a checkpoint group without regard to the program structure of the computer program (e.g., page 10, three groups of assertions Authentication, Authorization Decision, and Attribute without regard to the program structure)*,*

the assignment of each checkpoint to a checkpoint group being specified in the statement defining the respective checkpoint (e.g., page 18, <Authentication Statement>; page 19, <AuthorizationDecisionStatement>; page 21, <Attribute Statement>)*; and*

associate each checkpoint group with one of a plurality of activation variants that indicates a behavior based on a result of the assertion statement (e.g., pp. 18-20)*,*

wherein checkpoint groups associated with an activation variant behave in accordance with the activation variant (e.g., pp. 20-23)*.*

Claim 3:

SAML discloses *the product of claim 1, further comprising instructions to: establish activation variants to enable multiple checkpoint groups to be managed jointly* (e.g., pp. 24-27)*.*

Claim 9:

SAML discloses *the product of claim 1, wherein each assertion statement when activated testing whether a specified assertion condition is true or false; and*

the checkpoints comprise breakpoint statements, each breakpoint statement when activated halting program execution when it is encountered during program execution (e.g., pp. 11-15).

Claim 11:

SAML discloses *the product of claim 1, further comprising instructions to establish a development environment for developing the computer program in which the checkpoint groups are development objects* (e.g., pp. 36-40).

Claim 13:

SAML discloses *apparatus, comprising:*

means for establishing a plurality of checkpoints in a computer program, the computer I program having a program structure (e.g., page 8, Figure 1: a plurality of assertions; page 6, Introduction: XML-encoded SAML assertions),

each checkpoint in the plurality of checkpoints including an assertion statement; means for assigning each checkpoint in the plurality of checkpoints to a checkpoint group e.g., pp. 11-13, samples of assertion statements)

without regard to the program structure of the computer program (e.g., page 10, three groups of assertions Authentication, Authorization Decision, and Attribute without regard to the program structure),,

the assignment of each checkpoint to a checkpoint group being specified in the statement defining the respective checkpoint (e.g., page 18, <Authentication Statement>; page 19, <AuthorizationDecisionStatement>; page 21, <Attribute Statement>)*; and*

means for associating each checkpoint: group with one of a plurality of activation variants that indicate behavior based on a result of the assertion statement (e.g., pp. 18-20)*:*

wherein checkpoint groups associated with an activation variant behave in accordance with the activation variant (e.g., pp. 10-16).

Claim 17:

SAML discloses *a method, comprising:*

receiving a computer program having a plurality of checkpoints, each checkpoint being assigned to at least one of a plurality of checkpoint groups (e.g., page 8, Figure 1: a plurality of assertions; page 6, Introduction: XML-encoded SAML assertions)*,*

each checkpoint and each checkpoint group being identified by a group identifier, each checkpoint in the plurality of checkpoints including an assertion statement (e.g., pp. 11-13, samples of assertion statements)*,*

the assignment of each checkpoint to a checkpoint group being specified in the statement defining the respective checkpoint, the statement including the group identifier identifying the checkpoint group (e.g., page 10, three groups of assertions Authentication, Authorization Decision, and Attribute)*; and*

associating each checkpoint group with one of a plurality of activation variants that indicates a behavior based on a result of the assertion statement (e.g., page 18, <Authentication Statement>; page 19, <AuthorizationDecisionStatement>; page 21, <Attribute Statement>)*,*

wherein checkpoint groups associated with an activation variant behave in accordance with the activation variant; and receiving user input to invoke checkpoints as a group according to their group identifiers (e.g., pp. 18-23)*.*

Claim 25:

SAML discloses *a method for adding checkpoints to a computer program having source code, the method comprising:*

adding to the computer program a plurality of checkpoints each assigned to a checkpoint group by a respective group name for the checkpoint (e.g., page 8, Figure 1: a plurality of assertions; page 6, Introduction: XML-encoded SAML assertions; pp. 11-13, samples of assertion statements)*,*

each checkpoint in the plurality of checkpoints including an assertion statement (e.g., page 10, three groups of assertions Authentication, Authorization Decision, and Attribute),

the assignment of each checkpoint to a checkpoint group being specified in the statement defining the respective checkpoint (e.g., page 18, <Authentication Statement>; page 19, <AuthorizationDecisionStatement>; page 21, <Attribute Statement>)*; and*

associating each checkpoint group with one of a plurality of activation variants that indicates a behavior based on a result of the assertion statement (e.g., pp. 18-20)*;*

wherein checkpoint groups associated with an activation variant behave in accordance with the activation variant (e.g., pp. 20-23).

Claim 26:

SAML discloses *the method of claim 25, further comprising:*

adding the plurality of checkpoints to the source code of the computer program, the respective group name for each checkpoint being included in the source code for the checkpoint (e.g., pp. 15-17)*; and*

transporting the checkpoint groups as development objects with the computer program from a development environment to a production environment; the development objects being objects created and managed by the development environment (e.g. pp. 7-9).

Claim Rejections – 35 USC §103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which

said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claims 2, 4-7, 10-12, 14, 16, 18-20, 24, and 27-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over SAML in view of US Patent No. 6,378,125 to Bates et al. (art made of record, hereafter "Bates").

Claim 2:

SAML does not explicitly disclose *the product of claim 1, wherein the checkpoints comprise breakpoint statements.*

However, in an analogous art, Bates further discloses *the checkpoints comprise breakpoint statements* (e.g., col.5: 40 – col.6: 36; col.6: 44 – col.7: 37).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to combine Bates' teaching into SAML's teaching. One would have been motivated to do so to debug multi-threaded applications as suggested by Bates (e.g., col.2: 5-41).

Claim 4:

Bates further discloses *the product of claim 1, further comprising instructions to: receive a control input activating a first checkpoint group; and activate the checkpoints in the first checkpoint group* (e.g., FIG. 4, block 74 YES/NO, col.5: 40 – col.6: 36).

Claim 5:

Bates further discloses *the product of claim 4, wherein the instructions to receive a control input further comprise instructions to:*

receive a control input that specifies a mode in which checkpoints that are assertions terminate on assertion failure (e.g., col.4: 41 – col.5: 5)*;*

receive a control input that specifies a mode in which checkpoints that are assertions log status on assertion failure (e.g., col.5: 26-65)*; and*

receive a control input that specifies a mode of activating checkpoints in which assertions break in a debugger on assertion failure (e.g., col.6: 10-43).

Claim 6:

Bates further discloses *the product of claim 4, further comprise instructions to: receive a control input specifying that activating is to be performed only for a particular user of multiple users using the computer program, the activating not affecting the use of the computer program by other users* (e.g., col.6: 59 – col.7: 37).

Claim 7:

Bates further discloses *the product of claim 4, further comprise instructions to: receive a control input specifying that activating is to be performed only for a particular server of multiple servers on which the computer program is running* (e.g., col.8: 44 – col.9: 32).

Claim 10:

Bates further discloses *the product of claim 2, wherein: the assertion statements comprise an assertion statement having an argument to activate logging with programmer-controlled granularity, the argument being used to determine whether to update a log entry when the assertion statement fails* (e.g., col.7: 10-62).

Claim 12:

Bates further discloses *the product of claim 1, wherein the checkpoints and the computer program are in a compiled form* (e.g., col.6: 44 – col.7: 37).

Claim 14:

Bates further discloses *the apparatus of claim 13, wherein the checkpoints comprise breakpoints* (e.g., col.5: 40-65).

Claim 16:

Bates further discloses *the apparatus of claim 13, further comprising: means, for associating an activation variant with a compilation unit* (e.g., col.5: 26 – col.6: 36).

Claim 18:

Bates further discloses *the method of claim 17, further comprising: receiving a user input specifying a mode of invocation of checkpoints; and invoking checkpoints according to the specified mode* (e.g., col.6: 37 – col.7: 22).

Claim 19:

Bates further discloses *the method of claim 17, further comprising:*

receiving a further user input specifying a scope ofinvocati0n of checkpoints (e.g., col.5: 26-65),

the scope specifying that checkpoints are to be invoked only for a particular user of multiple users using the computer program (e.g., col.6: 37 – col.7: 22); *and*

invoking checkpoints according to the specified scope (e.g., col.7: 38 – col.8: 29).

Claim 20:

Bates further discloses *the method of claim 17, further comprising:*

receiving a further User input specifying a scope of invocation of checkpoints, the scope specifying that checkpoints are to be invoked only for a particular server of multiple servers (e.g., col.4; 49 – col.5: 39)

on which the computer program is running; and invoking checkpoints according to the specified scope (e.g., col.5: 66 – col.6: 36).

Claim 24:

Bates further discloses *the method of claim 17, wherein the computer program has checkpoints including breakpoints* (e.g., col.4: 49 – col.5: 25).

Claim 27:

Bates further discloses *the product of claim 10, wherein argument to activate logging indicates that a log entry is made for each distinct value of a named field* (e.g., col.5: 26-65).

Claim 28 (new):

Bates further discloses *the product of: claim wherein the checkpoints: and the activation Variants are established in a maintenance module, and affect operation of a separate debugger module* (e.g., col.6: 37 – col.7: 23).

Claim 29 (new):

Bates further discloses *the apparatus of claim 13, wherein the means for establishing, the means for assigning, and the means for associating are provided in a maintenance module* (e.g., col.9: 5-39), *and wherein the checkpoint groups and the activation variants affect operation of a separate debugger module* (e.g., col.8: 10-44).

Claim 30 (new):

Bates further discloses *the method of 17,wherein the checkpoint groups and the activation variants are established in a maintenance module, and affect operation of a separate debugger module* (e.g., col.7: 38 – col.8: 9).

Claim 31 (new):

Bates further discloses *the method of 25, wherein the checkpoint groups and the activation variants are established in a maintenance module, and affect operation of a separate debugger module* (e.g., col.6: 10-62).

Conclusion

9. Applicants' amendment necessitated the new ground(s) of rejection presented in this office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication should be directed to examiner Thuy Dao (Twee), whose telephone/fax numbers are (571) 272 8570 and (571) 273 8570, respectively. The examiner can normally be reached on every Tuesday, Thursday, and Friday from 6:00AM to 6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q. Dam, can be reached at (571) 272 3695.

The fax phone number for the organization where this application or proceeding is assigned is (571) 273 8300.

Any inquiry of a general nature of relating to the status of this application or proceeding should be directed to the TC 2100 Group receptionist whose telephone number is (571) 272 2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov.

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/Thuy Dao/
Examiner, Art Unit 2192

/Tuan Q. Dam/
Supervisory Patent Examiner, Art Unit 2192